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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,081	03/08/2004	Petteri Annamaa	01329/0200971-US0	8107
7278	7590	07/24/2006	EXAMINER	
DARBY & DARBY P.C. P. O. BOX 5257 NEW YORK, NY 10150-5257			TRINH, MINH N	
			ART UNIT	PAPER NUMBER
			3729	

DATE MAILED: 07/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/800,081

Applicant(s)

ANNAMAA ET AL.

Examiner

Minh Trinh

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/8/04, 10/29/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The abstract should be revised to form a single paragraph and limited to 50-150 words.

Claim Objections

2. "A method "(claims 2-16, line 1) should be changed to:-- the method--, so as to reflect the dependent claims format.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following are examples:

Claim 1 recites: "are formed (claim 1, line 3); is removed, etc (claim 1, line 9) are not positive method limitations, the examiner suggests the use of forming, removing, etc. Further, the use of: "the method comprising:" should be inserted at the end of the preamble of claim 1.

It is not clear as to what being referred as "it" (claim 2, line 3).

Claims 3-4, recites "after processing of antenna component" (each claim 3-4, lines 2) is not understood since there is lacing of processing of the antenna step in prior to claims 3 and 4.

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"plate like"(claim 5, line 1) should be: --plate--.

What being referred as "machined by a hot tool" (claim 6, line 1) and "deep drawing techniques" (claim 7, line 1) please be more specific.

It is not clear as to what being referring as "said uniform conducting layer being a separate conductive film" (claim 11, lines 1-2), what is "a separate conductive film"?

Claim 15 appear to be incomplete because it is not known as to what being attached to the "contacts by welding" (see claim 15, line 1).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 10, 15 and 16 as best understood are rejected under 35 U.S.C. 102(e) as being anticipated by Bordi et al (US 6950068).

The applied reference has a common Assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

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the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Bordi et al disclose method of the present application comprising forming shorting and feeding conductor on the protrusion (401, 402, see Fig. 4a, b, and the discussion at col. 4, lines 15-25), the protrusion having a height being a designed height of the planar antenna is machined into said planar plastic blank or ground to form said dielectric supporting part, the radiator 410 and the feeding and shorting conductor joining to the radiator are located on a surface of said protrusion (see Fig. 4B), and a contact is attached both to the feeding conductor and to the shorting conductor (see Fig. 4B). It is noted that Bordi et al contact hole as shown on Fig. 4B where the 401 and 402 being inserted or mounted to are represented the broadly claimed at least one opening is formed in the planar plastic blank around said protrusion for the attachment of said contacts. Further, Bordi et al also inherently disclose at least one opening is formed in the planar plastic blank or ground around said protrusion for the attachment of said at least one contact 101 (see Fig. 1b).

Limitations of claims 10, 15 and 16 are also met by the Bordi et al et al reference (see Fig. 1-4B, and the discussion similar to the above). Noted that Fig. 1b of Bordi et al shows that the contact being welded to the substrate.

7. Claims 1, 10, 15 and 16 as best understood are rejected under 35 U.S.C. 102(e) as being anticipated by Mendolia et al (WO 03/067705).

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Mendolia et al discloses a method for producing antenna components intended for planar antennas, having feeding conductor 206 and shorting conductor 205 are formed in a uniform conducting layer, and a dielectric supporting part is formed for the radiator, an antenna component 200 comprising contacts for connecting the antenna component, each component material is removed from said uniform conducting layer to form a radiator, feeding conductor and shorting conductor 205-206, a protrusion with a height being a designed height of the planar antenna is machined into said planar plastic blank to form said dielectric supporting part, the radiator 204 and the feeding and shorting conductor 205-206 joining to the radiator are located on a surface of said protrusion, at least one opening or vias (see page 9, paragraph 1) is formed in the planar plastic blank around said protrusion for the attachment of said contacts, and a contact is attached both to the feeding conductor and to the shorting conductor (see Fig. 1-6, and the discussion at pages 2-3, under "Brief Summary").

Limitations of claims 10, 15 and 16 are also met by the Mendolia et al (see related embodiment of Figs. 1-6, and the discussion on pages 1-3 and that as discussed above).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
9. Claims 2-9 and 12-14 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over by Bordi et al or Mendolia et al in view of Moren (6,281,842).

The Bordi et al or Mendolia et al do not teach the limitations recited in these claims such as where the mounting substrate is in form of tape reel or wound on a coil form as recited in claims 2-3 for processing antenna components. Moren discloses that (see Fig. 1, shows the coil form for processing antenna). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the Moren 's teaching as described in details above onto either invention of Bordi et al or Mendolia in order to facilitate the fabrication process including smooth and efficient operating of the flexible substrate would achieved.

As applied to claims 12-14, noting the Moren reference discloses the use uniform conductive layer being a separate conductive film (see col. 4, lines 1-7, col. 4, lines 39-44) and the use of adhesive as glue for attaching component to its carrier (see col. 3, lines 65-67, col. 4, lines 51-60, etc).

Conclusion

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10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art for their teachings of method for making antenna or the like.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Trinh whose telephone number is (571) 272-4569. The examiner can normally be reached on Monday -Thursday 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (571) 272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mt
7/19/06


MINH TRINH
PRIMARY EXAMINER